REMARKS

Claims 1, 3-11 and 13-21 are pending in this application, of which claims 1, 7, 11, 15 and 19 have been amended and claims 13, 20 and 21 have been withdrawn from consideration. Claims 2 and 12 have been canceled. No new claims have been added.

The Abstract and specification have been amended to correct various grammatical, idiomatic and spelling errors. No new matter has been added.

Claim 19 stands objected to for an informality, and has been amended to correct the noted informality.

Claims 7-8 stand rejected under 35 U.S.C. §112, second paragraph, as indefinite.

Accordingly, claim 7 has been amended to recite that the space between said emitter and said object is filled with a dry gas, and the 35 U.S.C. §112, second paragraph, rejection should be withdrawn.

Claims 2, 12 and 18 stand rejected under 35 U.S.C. §103(a) as unpatentable over **Ito** in view of U.S. Patent 6,285,118 to Hatai et al. (hereinafter "**Hatai et al.**).

Applicants respectfully traverse this rejection.

Ito discloses a micro vacuum pump capable of enhancing the performance of exhausting rare gases as well as active gases thereby to ensure quality, good repeatability and stable getter action of the micro vacuum pump over a long time. The micro vacuum pump capable of maintaining a high degree of vacuum includes a first conductive substrate having many protrusions and mounting a second conductive substrate disposed with a predetermined interval provided with respect to the first conductive substrate so that it faces the protrusions. A gate electrode is disposed in the vicinity of the apexes of the protrusions on the first conductive substrate via an insulator layer, and is positioned to face the second conductive substrate. Relative to

the first conductive substrate, a negative potential is supplied to the second conductive substrate, and, a same negative potential difference is also applied to the gate electrode relative to the cones.

Hatai et al. discloses a field-emission type electron source and a method of fabricating the same. As best understood from the disclosure, such electron source is used in a planar illumination source, a flat-display element, or solid-vacuum device. Applicants respectfully submit that **Hatai et al.** belongs to a non-analogous technical field separate and apart from the present invention, and does not teach, mention or suggest using such electron source for modifying an object, which is the subject matter of the present invention.

Thus, the teachings of **Ito**, directed to a micro vaccum pump, may not be combined with the teachings of **Hatai et al.**, which is directed to the non-analogous art field of field-emissive type electron source and a method of fabricating the same, to teach the present invention in which the claims are directed to a method of modifying an object with electrons.

Accordingly, claims 2 and 12 have been canceled and their limitations added to independent claims 1 and 11, respectively, and the 35 U.S.C. §103(a) rejection should be withdrawn.

Claims 5-6, 9-11, 14 and 16-17 stand rejected under 35 U.S.C. §103(a) as unpatentable over **Tomoaki**.

Applicants respectfully traverse this rejection.

Tomoaki discloses a device for charge generation. Electron emission device 1 emits electrons energized by the electric field in the device. There is also a means for controlling negative ions produced by the electrons emitted from the electron emission device 1 and the electrically negative gas molecules. For a controlling means, for example, an electric field applied by a bias power supply 9 between the body to be electrified and the electron emission device is used, and the electric field is controlled,

in such a manner that a part of the field having ≥6x106 V/m strength has ≤10 μm for the gap distance. The objective body 7 to be electrified is electrified by the above negative ions.

Tomoaki, directed to a non-analogous art field of a charge generator device, is not combinable with **Hatai et al.** to teach the present invention, as recited in claims 1 and 11, as amended, from which these claims depend.

Thus, the 35 U.S.C. §103(a) rejection should be withdrawn.

Claims 2, 12 and 18-19 stand rejected under 35 U.S.C. §103(a) as unpatentable over **Tomoaki** in view of **Hatai et al.**

As noted above, these references fail to teach, mention or suggest the features recited in claim 11, as amended, from which claims 18-19 depend.

Claim 15, indicated as allowable by the Examiner if rewritten in independent form, has been so amended.

In view of the aforementioned amendments and accompanying remarks, claims 1, 3-11 and 14-19, as amended, are in condition for allowance, which action, at an early date, is requested.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

Dated: September 2, 2009

Respectfully submitted,

CUSTOMER NO.: 21874

By _____

William L. Brooks
Registration No.: 34,129
EDWARDS ANGELL PALMER & DODGE LLP
P.O. Box 55874
Boston, Massachusetts 02205
(202) 478-7376
Attorneys/Agents For Applicant